

ABSTRACT OF THE DISCLOSURE

A method for isolating bio-active molecules from complex, rationally designed oligopeptide libraries which elicit cytolytic activity from cloned cytotoxic T lymphocytes (CTLs). The method allows the simultaneous screening of multiple CTL lines against peptide libraries synthesized on solid phase support. The method to identify CTL-reactive oligopeptides yields products of therapeutic value such as vaccines in treating cancers, viral diseases, and autoimmune diseases, as well as to identify useful clinical diagnostic reagents with a reduction in assay time and increase in throughput.